WHAT IS CLAIMED IS:

1.   An information processing apparatus connected to a data memory, comprising:

a storage unit;

5   an access control unit that allocates access between the storage unit and the data memory; and

an information memory that stores information communicated between the access control unit and the data memory.

10   2.   The information processing apparatus according to claim 1, wherein the access control unit allocates the access to the storage unit when the idle capacity of the storage unit is equal to or more than a threshold value, and allocates the access to the data memory when the idle capacity of the storage unit is less than the threshold value.

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3.   An information processing system comprising:

a data memory; and

an information processing apparatus that is connected to the data memory, the information processing apparatus including

20   a storage unit;

an access control unit that allocates access between the storage unit and the data memory; and

an information memory that stores information communicated between the access control unit and the data memory.

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4.　　A computer program that is to be executed on an information processing apparatus that has a storage unit and that can access a data memory that is connected to the information processing apparatus via a communication unit, the computer program executing:

5　　　　allocating an access between the storage unit and the data memory; and

storing information communicated to the data memory while the data memory is being accessed.

10　5.　　The computer program according to claim 4, wherein the allocating includes checking an idle capacity of the storage unit, and allocating the access to the storage unit when the idle capacity is equal to or more than a threshold value, and allocating the access to the data memory when the idle capacity is less than the threshold value.

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6.　　A gateway card that is connected to an information processor and that allows transfer of data between different networks, comprising:

a switching unit that is provided between the information processor, the gateway card, and a memory;

20　　　　a switch control unit that controls the switching unit to connect between the information processor and the memory when the operation status of the information processor is a first operation status, and controls the switching unit to connect between the gateway card and the memory when the operation status of the information processor is

25　shifted from the first operation status to a second operation status;

an access control unit that controls an access to the memory, that allocates the access to the memory via the switching unit when the operation status of the information processor is the second operation status, and that allocates the access to the memory via the information

5   processor and the switching unit when the operation status of the information processor is the first operation status; and

an information storage unit that stores information communicated between the access control unit and the information processor.

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7.   The gateway card according to claim 6, wherein the first operation status is a status that the information processor is in a normal power mode, and the second operation status is a status that the information processor is in a power-saving mode.

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8.   A gateway device comprising an information processor and a gateway card that is connected to the information processor and that allows transfer of data between different networks,

the gateway card including

20   a switching unit that is provided between the information processor, the gateway card, and a memory;

a switch control unit that controls the switching unit to connect between the information processor and the memory when the operation status of the information processor is a first operation status,

25   and controls the switching unit to connect between the gateway card

and the memory when the operation status of the information processor

is shifted from the first operation status to a second operation status;

an access control unit that controls an access to the

memory, that allocates the access to the memory via the switching unit

when the operation status of the information processor is the second

operation status, and that allocates the access to the memory via the

information processor and the switching unit when the operation status

of the information processor is the first operation status; and

an information storage unit that stores information

communicated between the access control unit and the information

processor, wherein

the information processor shifts the operation status from the

first operation status to the second operation status when a

predetermined cause of a shift occurs.

9.   A computer program that is executed on a computer so as to

control a gateway card that is connected to an information processor

and that allows transfer of data between different networks, the

computer program making the computer execute:

switching a switching unit, which is provided between the

information processor, the gateway card, and a storage unit, to connect

between the information processor and the memory when the operation

status of the information processor is a first operation status, and

switching the switching unit to connect between the gateway card and

the memory when the operation status of the information processor is

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shifted from the first operation status to a second operation status;

allocating an access to the memory via the switching unit when the operation status of the information processor is the second operation status, and allocating an access to the memory via the

5   information processor and the switching unit when the operation status of the information processor is the first operation status; and

storing information communicated to the information processor while the information processor is being accessed.